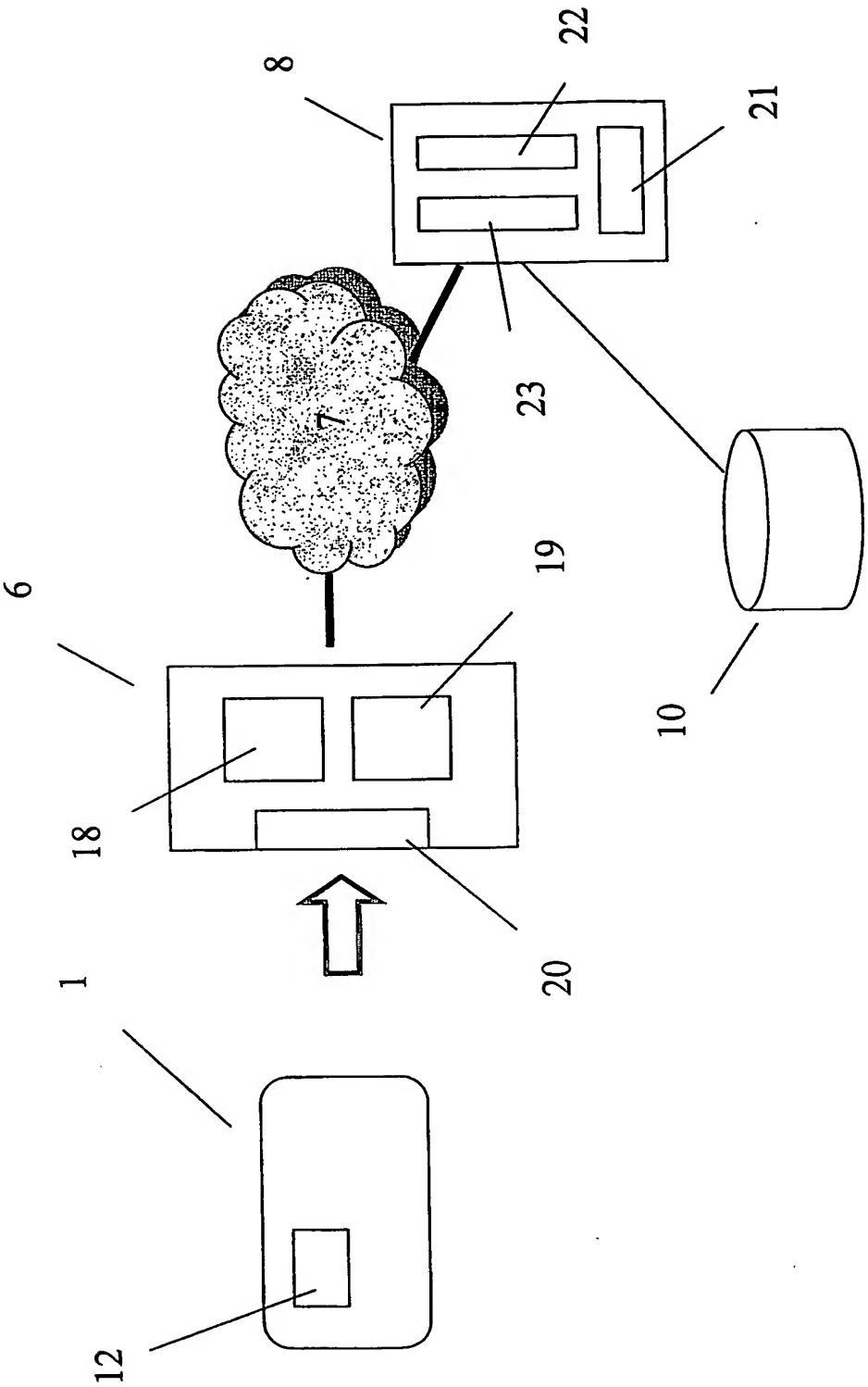

FIG. 1

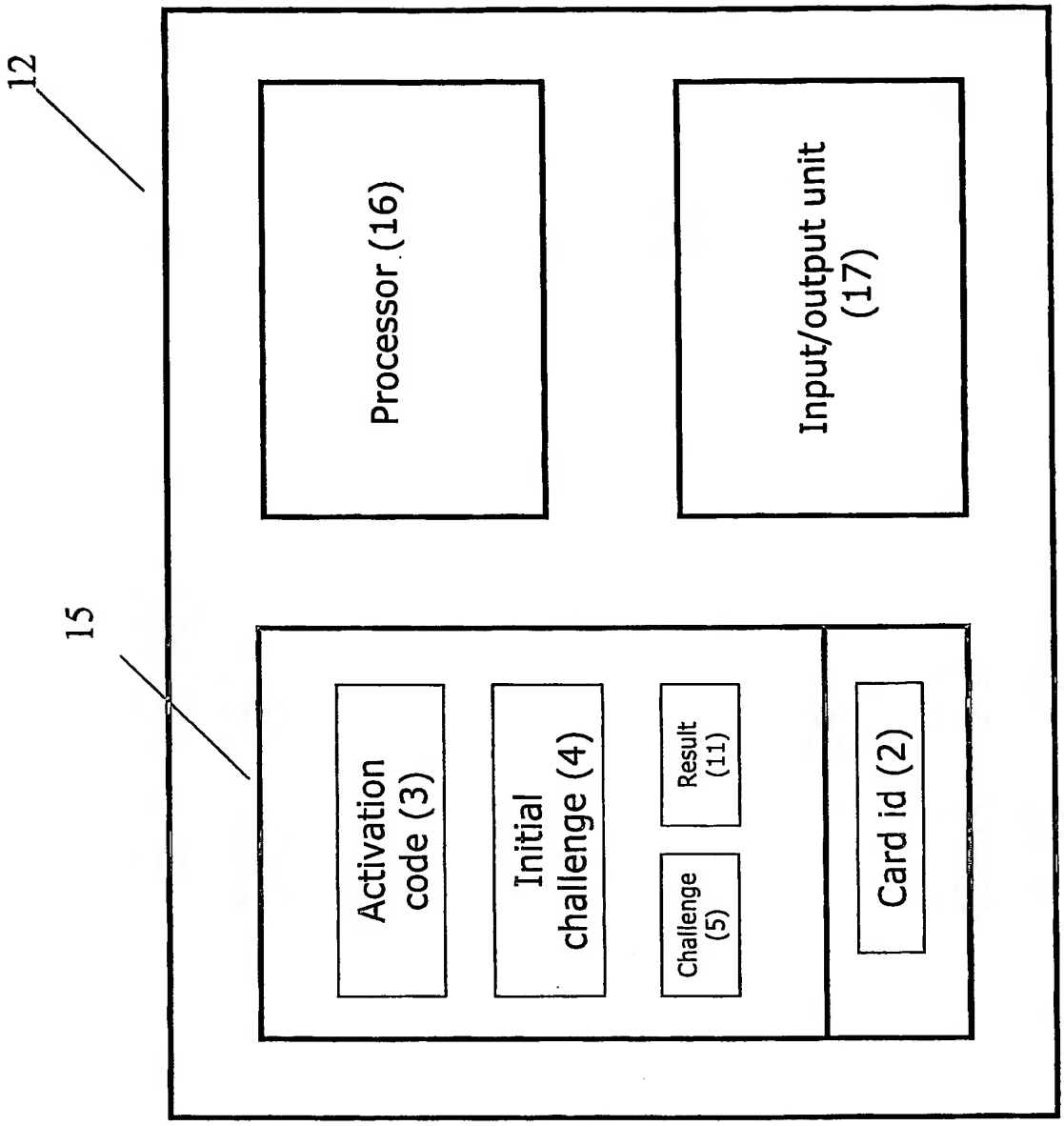
12
15
Processor (16)
Input/output unit (17)
Activation code (3)
Initial challenge (4)
Challenge (5)
Result (11)
Card id (2)

FIG. 2

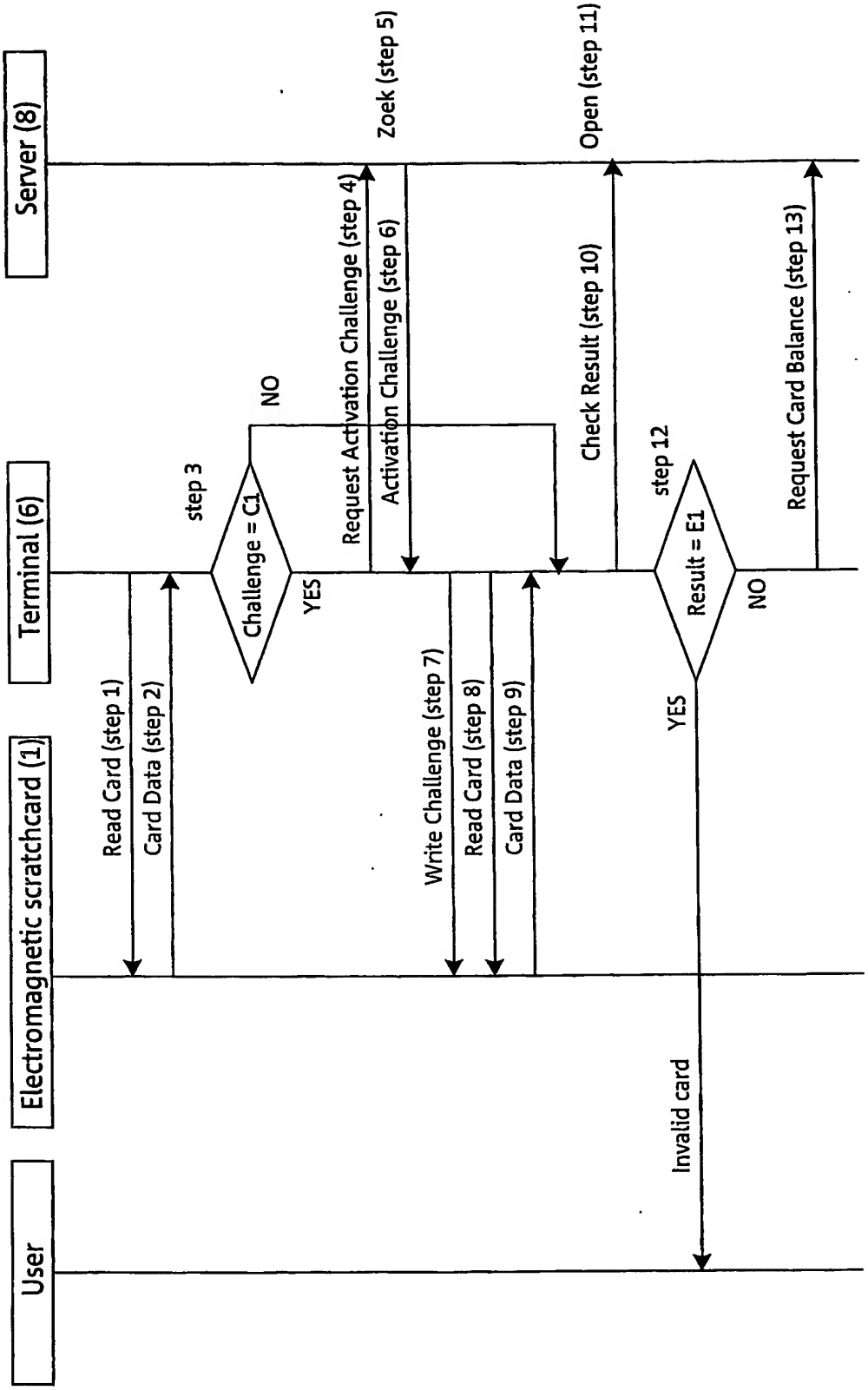
Server (8)
Terminal (6)
Electromagnetic scratchcard (1)
User
Zoek (step 5)
Open (step 11)
Request Activation Challenge (step 4)
Activation Challenge (step 6)
Check Result (step 10)
Request Card Balance (step 13)
step 3
Challenge = C1
NO
YES
step 12
Result = E1
NO
YES
Read Card (step 1)
Card Data (step 2)
Write Challenge (step 7)
Read Card (step 8)
Card Data (step 9)
Invalid card

FIG. 3

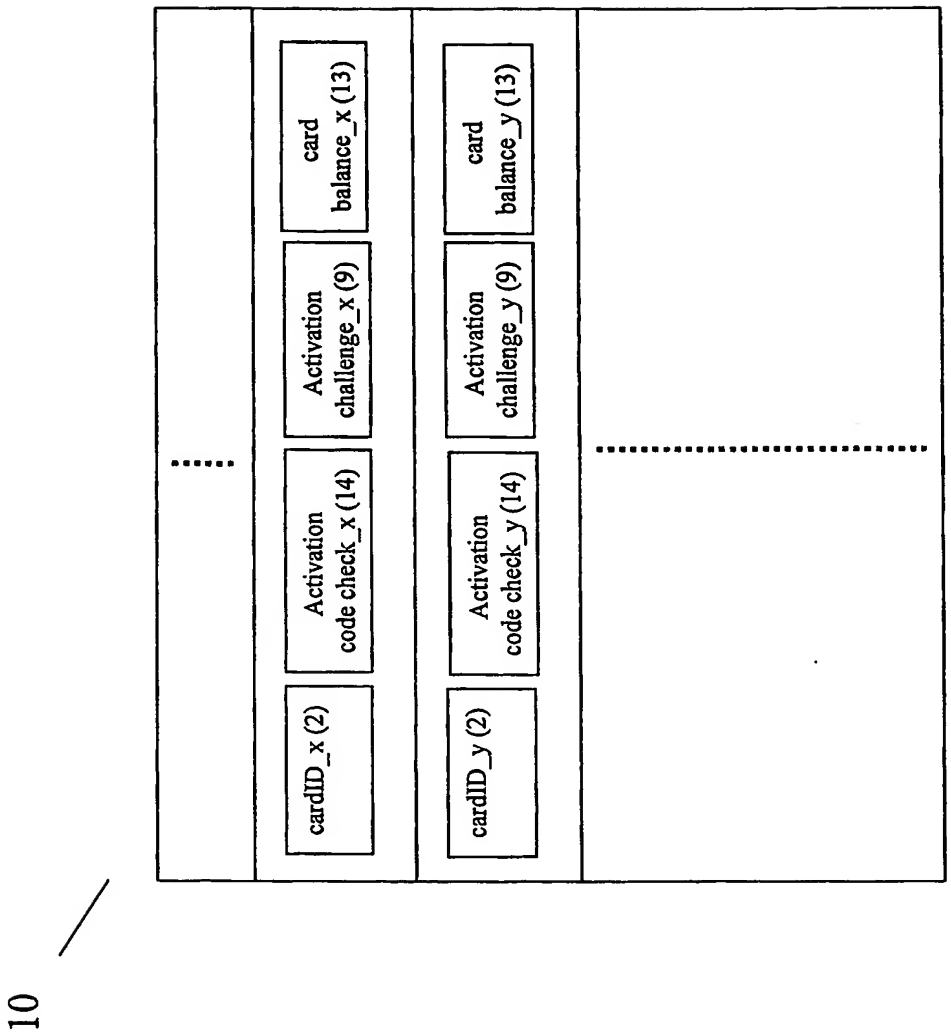
10
cardID_x (2)
Activation code check_x (14)
Activation challenge_x (9)
card balance_x (13)
cardID_y (2)
Activation code check_y (14)
Activation challenge_y (9)
card balance_y (13)

FIG. 4